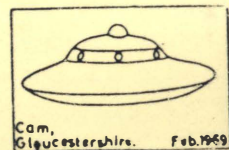
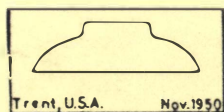
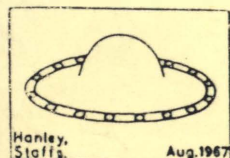


AWARENESS

JOURNAL OF CONTACT INTERNATIONAL

ISSUE 2 1987-8



AWARENESS

(A Contact (UK) Publication.)

Editorial Address &
All Correspondence to:-11, Ouseley Close,
New Marston,
Oxford. OX3 QJS
England.ContentsPage No.

Editorial	1
Changes in Administration	2-3
A Theory on Flying Saucers - A.J. Belford	3-9
Hypothesis on Origin/Nature of UFOs - Y.R. Dragwyla	9-22
Ufological Illusions - G.E. Ambler	22-25
Letters to the Editor	25-27
Advertisements	28-29

CONTACT INTERNATIONAL COUNCIL

<u>Founder President:</u>	Lord Clancarty	<u>President:</u>	Ruth Rees
Vice President:	Geoffrey Ambler		
National Chairman (UK) :	Michael Soper		
Hon Treasurer:	c/o G.E. Ambler		
Membership Secretary:	Louise Copeland		
Senior Research Officer:	Derek Mansell 13, Keval Gardens, Seaton,		
Investigations co-ordinator:	Nr Torpoint, Cornwall, PL11 3JH		
Research Enq. & Editor :	Geoffrey E. Ambler		
Cataloguing and Typist:	Mrs. Frances Copeland		
Librarians:	Bernard Delair		
	David Ridge		

Opinions expressed in this Journal are not necessarily those of the Editor or of the staff of Contact (UK). All contributors are solely responsible for the factual accuracy of their texts.

Unless otherwise stated, all material printed herein is copyright of CONTACT (UK) 1988. No part or parts of any published article may be reproduced whatever the method, without prior permission of the Editor of CONTACT (UK) except for purposes of review.

ADVERTISING RATES

£15.00	per page	(4 issues)
10.00	" 1/2 "	(4 issues)
7.50	" "	(2 issues)
5.00	" 1/4 "	(4 issues)
lineage	50p	(a line of 12 words)

EDITORIAL

1

In the last edition of AWARENESS we confirmed that Derek Mansell was leaving Oxford to return to Cornwall where he lived during his boyhood years. This has now taken place - Derek departing on Feb. 25th 1988 and we are pleased to report that transfer of all the records and literature belonging to Contact International to other locations has now been completed. The whereabouts of various items and the duties being carried out by other officers of the group are set out on page 2. Derek has implied that he will still take an active interest from Cornwall and will continue to be in charge of national UFO investigations. He is already in the throes of setting up a local group near his new location.

We are sure that all members and investigators of long standing will wish to thank Derek for his many years of service to the CONTACT organisation and wish him every success in Cornwall.

The membership secretary reports a rapid increase in the number of new membership applications in the last few months. This is a very welcome sign and gives hope that CONTACT will continue to thrive for some years to come. The financial position of the group has improved since the rather despondent picture reported in the last edition of Awareness, thanks mainly to some generous donations received in the last three months. Grateful thanks to all those who contributed.

From time to time the CONTACT organisation receives unexpected visits from persons experiencing Close Encounters or abductions by UFO's. These witnesses are so highly motivated by their experiences that they undertake to travel large distances to communicate to the likes of CONTACT INTERNATIONAL. Such was the situation on February 18th when we were informed that Mr. D. was flying from Australia (presumably at his own expense) to show us photographs and a video film of what he thought might be an alien entity. A meeting was hastily arranged at Oxford between Mr. D. and three members of the CONTACT INTERNATIONAL Council. A video lasting around 2 minutes was seen showing what appeared to be a vaguely humanoid shape with a head, long thin neck and a bulbous abdomen. The "head and abdomen" were intensely brilliant light sources on which no features could be seen. The creature/object appeared to move slightly during the display. After about 2 minutes what appeared to be a door moved across the screen and at this point, the film abruptly changed to shots of dogs in the witnesses own garden.

The witness claimed to have been out sky-watching in his garden at night on the anniversary of a previous sighting he had experienced. He noticed a bright light approaching and started filming with a video camera. As the light approached he thinks he was suddenly "taken over" and remembers nothing more until he found himself back in the garden filming his dogs. When the film was developed - to his amazement - he found a perfect sequence of shots of the creature/object on it with no apparent wobble on the camera, as if it had been frozen. He had the film checked by two Australian organisations and also by Kodak in the UK who declared the film to be genuine. Some pictures were left for examination, but as Mr. D. was in a hurry we were unable to produce results in under 24 hours after another hasty meeting with Mr. Soper he took away his evidence and flew on to America. In mitigation, it should be stated that Mr. D. works alongside specialised photography techniques and he would have ample knowledge to produce a fake film. Why did he have to show this to us - we are puzzled?

THE EDITOR

CONTACT INTERNATIONAL (UK) - CHANGES IN ADMINISTRATION

FROM FEBRUARY 25th 1988

The departure of Derek Mansell to Cornwall has necessitated a change of the group headquarters, and redistribution of the data systems which, in the main, have been stored at Derek's home for the last 15 years. A number of the administrative functions have also been relocated.

The following should be noted when making enquiries:-

CONTACT INTERNATIONAL (UK) ADMINISTRATION HEADQUARTERS

11 Ouseley Close, New Marston, Oxford. OX3 0JS Tel. Oxford 726908

U.K. CHAIRMAN responsible for data collection and local investigations.

Mr. Michael Soper. 11, Ouseley Close, New Marston, Oxford. OX3 0JS

Tel. Oxford 726908

Stored at this address are magazine back numbers excluding CONTACT Publications.

ADMINISTRATIVE and MEMBERSHIP SECRETARY responsible for entering the Master Catalogues and editor of UFO REGISTER.

Mrs. Frances Copeland and Louise Copeland. 97 Upper Road, Kennington, Oxford. OX1 5LW Tel. Oxford 730250.

Stored at this address are report forms, data sheets and master catalogues, also membership details.

VICE-PRESIDENT, EDITOR (AWARENESS) TREASURER (ACTING)

Mr. Geoffrey E. Ambler. 45 Ambrose Rise, Wheatley, Oxford. Tel. Wheatley 2628.

Stored at this address are back numbers of Awareness and UFO Register, some display boards.

CHIEF INVESTIGATIONS OFFICER (UK) Co-ordinator for investigations on national basis. Mr. Derek Mansell. 13 Keveral Gardens, Seaton, Nr. Tor-point, Cornwall.

PL11 3JH. Tel 05035 481.

Stored at this address are some display boards and the computer.

NEWSPAPER CLIPPING CUSTODIAN.

Mr. David Ridge. 26 Hillary Way, Wheatley, Oxford. Tel. Wheatley 2845

Stored at this address are collections of UFO cuttings from approximately 1950.

Other officers remain as listed in Contact International Council.

Would you please send your enquiries in the first instance to the appropriate addresses above. After an initial period, it is hoped to channel all correspondence through the Group Administration Headquarters only.

The Data Research group will continue to meet on Monday evenings at one of the addresses above. Please check with the secretary the venue being used, if intending to pay a visit.



A THEORY ON FLYING SAUCERS

by Adam J.R. Bedford B.Sc. C. Eng. M.I. Mech E*

A feature of UFO sightings which is very surprising is the number of saucer like objects reported. The majority of observers are untechnical and if their sightings were in any way the result of hallucinations or auto suggestion, we would expect them to report Jules Verne type objects. Flying objects conjured up by the imagination could be expected to resemble birds, javelins, arrows and darts. Even delta wing shaped objects would be understandable, but never flattish discs.

This being so, the saucers reported must be either some natural phenomenon such as refraction of light through air vortices or else they must be genuine UFOs.

If we now turn from the empirical evidence of the vast number of saucer sightings, to the rational investigation of an advanced design of space vehicle it seems to be more than a coincidence that a gyroscopic disc, identical in external shape to the 'flying saucer' is one logical outcome.

If flying saucers are extra terrestrial vehicles, they must be designed by beings of an advanced technical ability, by our standards, and we may be sure that the saucer shape has not been chosen for fun. A sphere is a much more economical shape for volume/surface ratio, and a cube is the easiest to compartment efficiently. If streamlining is required for atmospheric travel, the torpedo shape has much to commend it. So why a circular disc?

I will now outline my own ideas in the development of a flying machine, adapted for space travel, and here I crave the reader's indulgence in that my hypotheses are in many cases so weak as to be little better than hunches. Nevertheless, a good hunch is better than a hopeless uncomprehension.

Our own terrestrial flying machines are based on biological creatures, birds and insects. Due to our pre-occupation with rotating machines, the propeller and later the gas turbine almost immediately superseded the concept of flapping wings. Winged propeller driven aircraft and helicopters were rapidly developed

and constituted the phase 1 design.

The phase 2 design, currently in vogue is the supersonic jet propelled machine. The weakness in this concept is that the stability of the aircraft is a function of its speed: It is extremely difficult to design a high speed aerodynamically stabilised aircraft which remains stable at low speeds. In consequence the modern aircraft must need take off and land speeds which demand critical timing and instrumentation of a high degree.

If a high speed aircraft could be made stable at low or even zero speed, much of the danger would be removed from flying. The logical alternative means of stabilisation is the use of a gyroscope. This would provide angular stability at all speeds including zero speed.

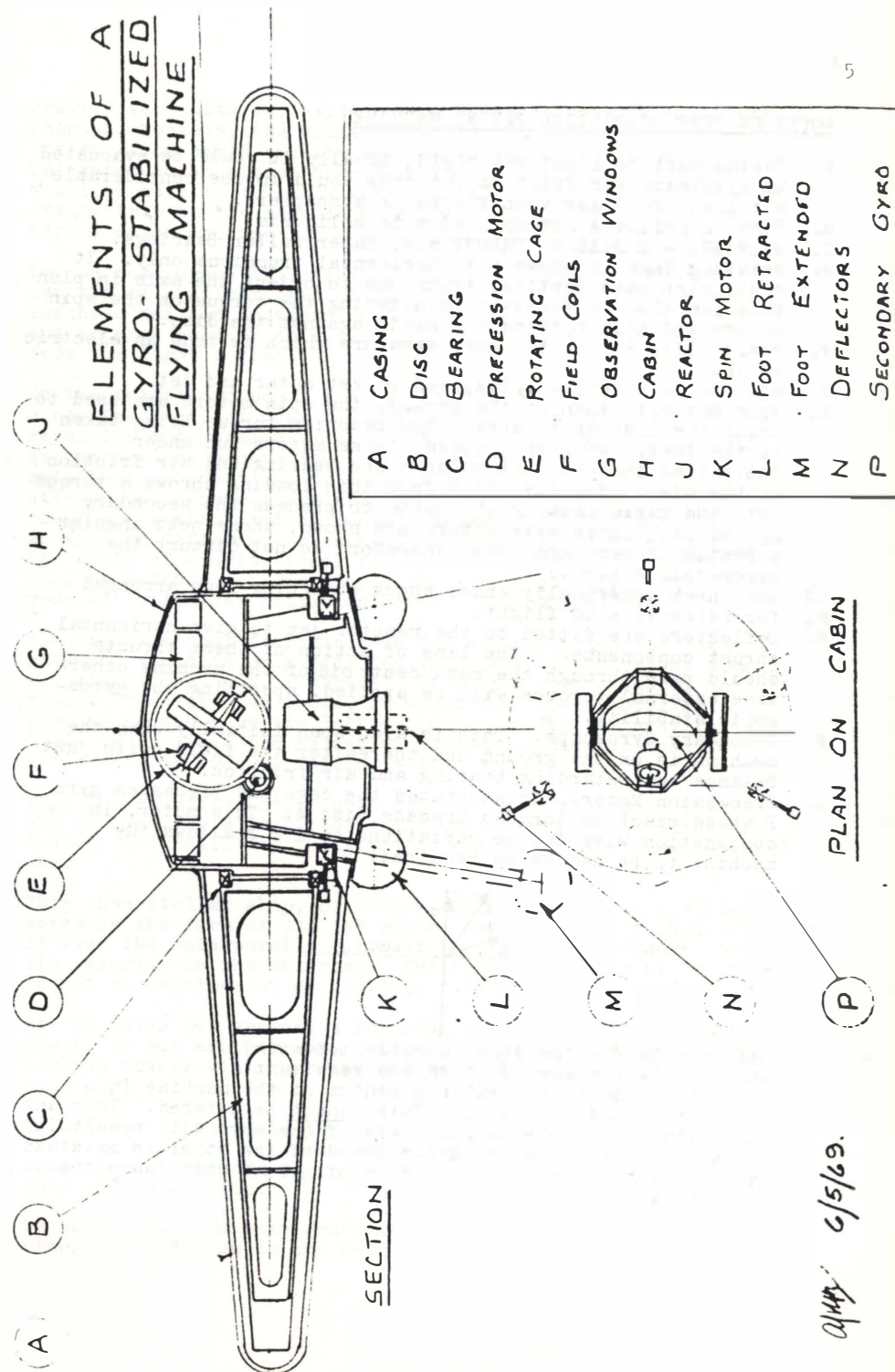
Such a machine is shown in fig 1 (see next page). Here a large disc spins about a central cabin. The disc is cased to avoid aerodynamic torques. On take off the central jet is activated and the machine rises vertically. Failure of the jet results in a parachute like drop to earth, which would be sufficiently slow to avoid damage on impact, especially if the legs were shock absorbent. The machine could hover motionless. For horizontal flight the secondary gyroscope would be precessed causing a torque which would precess the main disc and thus enable the machine to be canted and held at any desired angle. This would cause the vehicle to glide off in the desired direction. It would probably be better to fit deflector vanes to the jet and to fly with the disc horizontal. It is apparent that such a machine would be extremely versatile and safe, would be able to come to a standstill in busy airlines or in fog and would be able to land anywhere.

The elegance of this system is readily apparent. The economics is perhaps a different matter since the weight of the gyros necessitate a greater lifting thrust and the constructional difficulties in making the casing strong but light are by no means trivial. As a design exercise a machine of this type is a fascinating challenge.

Suppose however such a flying machine were tried out. The Characteristics would be unusual, and a pilot would require some time to become acclimatised to the feel of his aircraft. It would be able to glide along straight glide paths, brought to a halt by making it glide uphill and flattening out at zero velocity, or it could be banked in a circle, all by canting the secondary gyroscope.

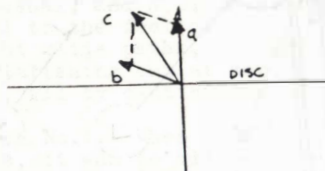
Now we come to hunch No.1. When the early mariners fitted a square sail to their ships, it was to allow the wind to blow them along. They could never have dreamt that the same sail, inclined at an angle would allow them to tack against the wind. In the same way if there is any connection between gravity and rotational phenomena (centrifugal force vs gravity, gyroscopic torque vs what?) then this type of machine might enable us to stumble upon it.

If the power sources for the jet were of sufficient magnitude (e.g. controlled nuclear power) a machine such as this could rise vertically to sufficient height to go into orbit. It would thus constitute an amphibious vehicle, capable of travel in atmosphere and in space. There would be a certain hazard in e.g. moon landings since the parachute effect of the disc would not obtain, but the gyroscopic 'stiffness' would hold the machine steady even if the centre of



NOTES ON GYRO STABILIZED FLYING MACHINE

- A. Casing must be light yet rigid, ideally it would be evacuated to eliminate air friction but this would impose considerable air pressure loads when flying in atmosphere.
- B. Disc is hollow & streamlined with solid rim.
- C. BEARINGS - RADIAL & THRUST e.g. Taper Roller Bearings.
- E. Rotating Cage is shown with horizontal trunnions only. It could also have vertical trunnions to orient the axis in plan. This can also be achieved by altering the torque on the spin motors and this rotates the cabin against the disc.
- F. Field Coils act on the gyro armature which is thus an electric motor.
- J. REACTOR is a centrally disposed rocket motor and jet.
- K. Spin Motors; When on the ground, the spin motors are used to bring the disc up to speed, the reaction torque being taken by the feet. When up to speed, these motors run under controlled load to just balance the bearing and air friction on the disc. Any deviation from this loading throws a torque onto the cabin causing the cabin to precess the secondary gyroscope. Three spin motors are shown, whose nett angular momentum is zero and these therefore do not disturb the gyroscopic control.
- L.) The three spherically ended shock absorbing legs arranged
- M.) for retraction in flight.
- N. Deflectors are fitted to the reactor jet to give horizontal thrust components. The line of action of these thrusts should pass through the mass centroid of the machine otherwise external torques will be applied, upsetting the gyroscopic stability.
- P. Secondary Gyroscope. This is also spun initially when the machine is on the ground and thereafter the field coils just balance the retarding bearing and air friction.
- O. Precession Motor. This rotates the cage and precesses gyro P whose reaction torques precess disc A. This motor, in conjunction with torque variations on K & F allows the machine to be canted as required.



If $a = I\omega$ for the disc (angular momentum) and $b = I\omega$ for gyro P, then the resultant c is the resultant angular momentum of the machine in magnitude and direction. This cannot be altered. Thus any alteration in angle and/or speed of one gyro will result in an alteration in angle and/or speed of the other to maintain c invariant. Hence manipulation of gyro P will cause the machine to cant.

gravity were altered. With such a machine, the present mighty chemical rockets, the split second timing, the computerised control from earth and the vast expenditure of capital would be relegated to an almost unbelievable romantic history. A man would be able to take his wife and children for a week's sight-seeing trip to the moon in much the same way as today he would hire a motor cruiser for a holiday on the Norfolk Broads.

Let us now pursue this train of thought further. Stars are centres of gravitational attraction. They are also centres of luminous and non luminous radiation. Radiation exerts pressure, and an area held up to e.g. light will tend to be driven away from the light source.

In the neighbourhood of the Sun this is of little consequence since the lines of gravitational attraction and of radiation repulsion are parallel. Also radiation, like gravitation varies as the inverse square law. In consequence the effect of solar radiation is identical to a fractional reduction in gravitational attraction. Where there are several stars however, the ratio of their gravitation attraction and radiation repulsion will in general be different in each case. Hence in interstellar space the field of gravitational force and that of radiation pressure will be different. For simplicity a case of four stars of equal mass but different radiation levels is shown in Fig. 2.

The gravitational field is true for any mass, but the light pressure field is only true for an object of equivalent area in all directions, e.g. a sphere. If a disc were situated in this field, orientated as shown, it would tend to be impelled in the directions shown by the dotted lines. Unlike the gravitation field (full line) the radiation pressure field (dotted) is different for each variation in disc orientation.

Thus for a sufficiently large disc and a sufficiently low mass, the machine, by suitable orientation can choose its direction of travel, and "sail" by the winds of radiation in a gravitational sea.

This interstellar ship, of course still possesses an auxiliary screw in the form of its jet motor, and this can be used to carry it over the unfavourable parts of the field, and also to boost its velocity in the doldrums. The faint intensity of the fields is not as detrimental as would at first appear.

At 100 miles per second, a force of one ounce delivers 60 horsepower, or put another way, a force of one ounce continually on a ten ton vessel will increase its velocity by 520 miles per hour each day.

In order to accentuate the 'sailing' qualities, one surface of the disc would be silvered and the other side would be black. It would be interesting to learn if any flying saucers sighted shows this characteristic.

We have mentioned only gravitation and radiation. There are other force fields in the universe. Magnetism for example plays

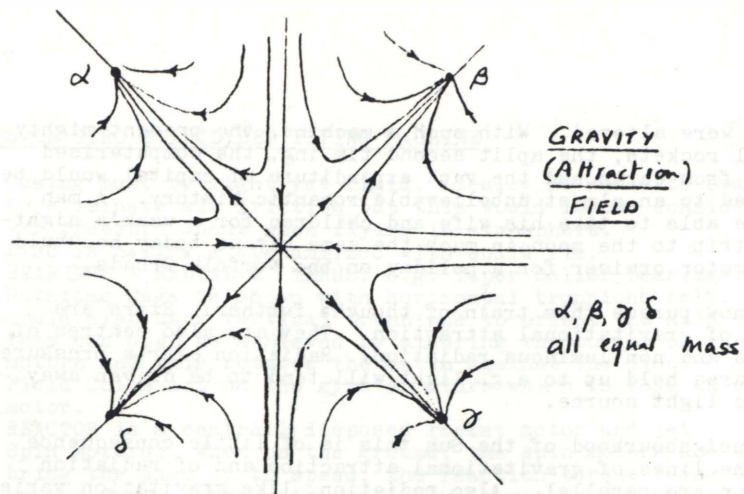
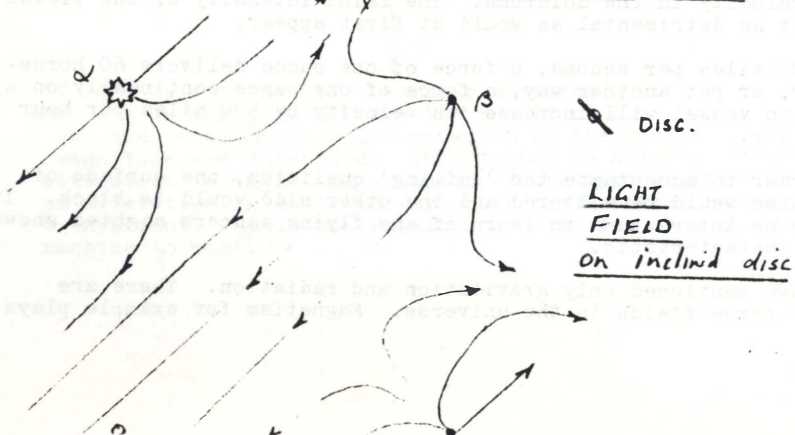
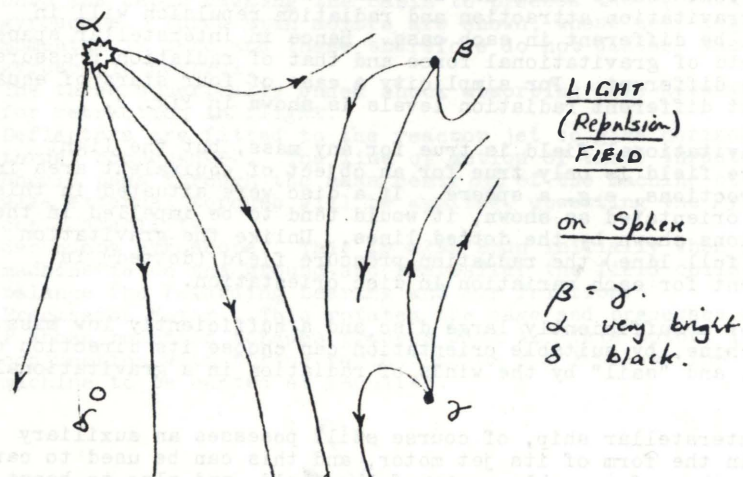


FIG-2



perhaps a bigger part than we realize, and as I mentioned before these are only hunches.

Anyone who has studied gyroscopic phenomena in detail will be aware of a certain incompleteness of our knowledge of the subject. To a linear quantity then usually corresponds an angular quality. e.g. linear velocity; angular velocity, force; torque etc.,

Gyroscopic Precession is the angular count part of centrifugal force. Yet two balanced centrifugal forces are associated with an angular momentum, but two balanced gyroscopic precessions are associated with only an angular momentum again. Two forces a linear distance apart form a torque, but two torques an angular distance apart form another resultant torque.

The mechanical and electrical equivalents are also somewhat inconsistent. Linear current is equated to linear motion of a body. Angular current (a solenoid) concentrates a magnetic force along its axis, but angular motion of matter (a spinning wheel) concentrates what along its axis? Angular Momentum? Is there a field of angular momentum? Is this the antigravitational field, the philosophers' stone of the modern alchemist?

Leaves and paper bags blow down the wind. Grass matter falls down the gravitational hill. But the yachtsman sets his keel in the sea and uses the wind to sail against the wind. Does the flying saucer set its spinning disc in some yet unknown matrix and use the gravitational force to climb against gravity?

It is at least food for thought.

*

22 Kings Road, OUNDLE, Peterborough. PE2 4AX.

Editor;

We understand this article was written in 1969, but is as yet unpublished. The author has kindly resubmitted the material after responding to Kiril Terzиеv's article in the previous Awareness (Vol. 15. No.1)

♥ An Hypothesis Concerning the Origin and Nature of UFOs, UMOs and UAOs Parts I and II

by Yael Ruth Dragwyla

Introduction

This article will present an hypothesis concerning the nature and origin of at least some classes of unidentified flying objects (UFO) or unidentified aerial object (UAOs), unidentified marine objects, and related phenomena. This hypothesis has the primary virtue that it can be subjected to objective test.

This article is not intended to debunk UFO/UAO/UMO reports and belief in the existence of UFO/UAOs or UMOs. On the other hand it does not base its explanation of the nature and origin of these phenomena on any of the standard hypotheses, which include the extraterrestrial-origin theory, the various supernatural or mystical ideas about UFO/UAOs or UMOs (which, from here on out, I will refer to collectively as UAOs except when special reference makes this inappropriate, for the sake of brevity and to eliminate needless redundancy), the "mass-hypnosis" or "crowd illusion" type theory, and the "paranoid conspiracy" or "we are being manipulated by someone else" hypothesis, the latter set forth in some detail by John Keel and, to some extent, by Jacques Vallee in their various books, among others. (see bibliography, Section VI.B. of this article, for a list of their works).

Rather, the hypothesis this article presents supports the idea that UAOs exist, but gives an explanation of their origin and nature in terms of the earth- and systems-sciences rather than in mystically stated ideas, psychology, sociology as such, the extraterrestrial-origin theory, or the various conspiracy theories.

This article begins with an apparent digression which is, however, relevant to the subject under discussion. This introductory section is an outline of certain observations of which the hypothesis presented here is a synthesis. It also gives empirical observations which the hypothesis predicts, showing that events and phenomena in the real world tend to support the hypothesis. The "digression" is presented as an outline in Part I of this article.

In section II, a summary of the material presented in Section I is given. This summary is the statement of the hypothesis itself.

The usual practice is to place the statement of the hypothesis first and discussion thereof after it. The reason that this was not done in this article is that, first, it seemed desirable to present first a summary in outline of the established knowledge upon which the hypothesis was based, so that the reasonableness of the hypothesis itself would be evident when it finally was given. Otherwise, as the hypothesis does not accord with any current school of thought on UAOs, it might have seemed less reasonable than in fact it is.

Second, this is not a completely formal paper on the subject. Therefore there is no reason not to bend the rules of presentation of such an idea just a little if thereby it becomes clearer and easier to analyze and test for its worth.

Section I: An Outline of Observations from Several Disciplines.

A. Ecological Consideration.

1. Many biologists and ecologists are now of the opinion that, at least in a broad sense, the Earth -- the planet upon which we live (or, to state it more accurately in ecological terms, in which we live, of which we are a part)-- is a sort

of living organism in its own right. Indeed, it may be noted that it was the first of all terrestrial organisms, one giant living cell swimming in the ocean of space.⁽¹⁾

- a. Our planet eats; it takes in sunlight and other radiation as well as gases, meteoric debris and other material from space around it and, via green plants, converts these to biomass. It also excretes; it gets rid of waste heat by re-radiation back to space on its night side.
- b. It maintains an internal steady-state, unless drastically disturbed in its functioning. Until the activities of human beings began seriously disturbing its internal dynamics, the Earth's biosphere (hereafter in this article called "Gaia", the name of the cthonic Goddess of the Earth from the ancient Greek religion, taken by some ecologists to mean the Earth and its biosphere as a living organism in its own right) maintained a balanced heat-budget; an average level of radiation at its surface; an optimal level of ozone at the upper levels of its atmosphere; stabilized cycles of nutrients through sea and land; and dynamic equilibrium of all the other aspects of its functioning. Even such massive fluctuations in its surface conditions as the ice ages, seen over geologic eras of time, are no more disproof of this idea that the Earth maintains itself in steady-state equilibrium than are, in (say) a human being, heart-beat, breathing turnover of bone calcium, developmental changes such as the onset of puberty or, in women, menopause, or any other developmental change of cyclic process necessary to the maintenance of life and its continuation disproof of the idea that an ordinary living organism, such as a human being, maintains itself in the steady-state equilibrium necessary to life and its functions.
- c. When any of its subsystems are seriously disturbed, Earth's biosphere attempts to correct the problem, just as the body of any living thing will act to correct disturbance in itself such as illness or a wound. For example, the particulate matter generated by a good-sized forest fire tend to become nuclei for the formation of water-drops in the upper atmosphere, they grow large and numerous enough as more drops form and soon in the frigid layers of the upper atmosphere they precipitate out as rain, which puts out the fire.

Another example may be found in predator-prey relationships; When a predator population grows too numerous or too efficient at its cropping of a prey population, it overgrazes its prey until these are so reduced in numbers that they cannot provide enough food for the predators, and become scattered too widely for the predators to find food easily. In this case, the predator population then shrinks due to attrition from starvation, and the prey population temporarily relieved of cropping by the predators, grows back to more normal size. Over decades, then, the sizes of the prey and predator populations tend to vary around an average or set-point, the magnitude of the variations

depending upon conditions favouring "blooms" of the predators, die-offs of the prey for reasons not connected to predation, and so on. But barring extremely unusual events, these variations never grow so large that the numbers of either prey or predators go to zero, and indeed tend to remain rather small. Thus the size of the populations of various terrestrial organisms tends not to fluctuate much under normal conditions.

As an example of this process, consider various populations of deer as found throughout the United States and the varieties of foliage they browse upon. This is an especially useful example now, since almost all predator species that used to crop the deer populations have been killed off or so reduced in numbers that they have a relatively insignificant impact upon the size of the deer populations. Therefore, except when human hunters crop the deer populations -- they are often encouraged to do so in some areas at various times since the catastrophes that occurred that are mentioned below -- the only checks on the increase of the deer herds are famine and its attendant spectre of disease.

Once the natural predators of the deer had been almost entirely killed off, in fact, before it was realized that there was need for predators, hence for human hunting, the deer multiplied so ferociously that when winter came they were trapped in their valleys with no other source of food, stripped the area down to bare rock to get what food there was, rendering large areas infertile for many years due to erosion. They then starved to death in unbelievable numbers. Public response which had previously encouraged destruction of natural predators and discouraged hunting of the deer, seeing the mass starvation and the complete stripping of all the foliage cried for culling of the animals. The United States Department of Fish & Game changed its policy accordingly and today human hunters are allowed to prey on the deer and thereby accomplish the necessary cropping, that otherwise could not occur.

This is a well-known story. The point is that before human cropping of the deer herds was widely allowed, and after the predators of the deer populations were gone, the case of these deer populations and their natural forage formed an extremely clear-cut textbook example of the cyclic rise and fall in numbers of the predator and prey populations (deer and foliage) due to their relationship. The deer increase in numbers to the point that they catastrophically reduce the numbers of the plants upon which they feed. At this point, there is very little food, not enough to support many of the deer. Therefore (barring human intervention, which did take place in a few cases in which baled hay was brought into these valleys for the starving deer) most of the deer starve. The remaining deer, which by this point are badly malnourished, do not re-produce quickly as their bodies are too depleted to bring many healthy offspring into the world in a short period of time. So does the vegetation, which has been stripped so badly that the soil is bare to rock in places; erosion of that soil prevents a full recovery of many parts of these areas for many years. Finally, the vegetation gains a foothold again and blooms rapidly. Now, with plenty of food to eat the herds likewise bloom-- indeed,

increase catastrophically until, in their profligate numbers they strip out all the vegetation once more, starting the cycle again.

This is an excessively drastic case. Normally, two-population systems do not exist in nature like this. In the normal case there are high numbers of the producer species (producers are organisms such as plants which manufacture their own food and eat no other organisms for food, and are at the bottom of all food pyramids, save for the sunlight and raw inorganic materials out of which they fashion their own food), many first-order consumer (or predator) species, and several second-, even third- and fourth-order consumer species. There are thus many checks and balances not only upon the growth populations, but also upon their decrease as, while on species, A, may prey upon another species, B, a third species, C, preys upon A, acting as a "brake upon the brake" upon B's population growth. So B's size tends to remain more or less constant, other factors not violently changing, and anything it preys upon tends not to vary much in population size. Matters are even more complicated by the fact that a predator of one species may prey upon the young of another while both these species prey upon a third species lower down the food pyramid than either of the first two. In addition, while a consumer (predator) may prey upon several species, a lower-order consumer or producer may be preyed upon by several consumers. Therefore what variations do occur in population size do not, in normal times, tend to be catastrophic.

Even so, populations do vary in size according to intensity of predator cropping of prey species, as outlined here. This is called a density-dependent. It can easily be seen that homeostatic mechanisms such as this tend to keep Gaia's various systems and subsystems in balance.

The bottom-line control on this particular sort of mechanisms is called "The Law of the Minimum." Simply stated, this "law" is: The size of a population of living things is absolutely limited by that resource in scarcest supply. Or more generally, the character of a living system is shaped by that natural resource which is least abundant. For Example, desert systems derive their character from scarcity of water; soil ecosystems from lack of freely available sunlight (requiring producer organisms to get their raw energy from minerals, by reduction, instead); marine ecosystems in the deepest parts of the ocean, from scarcity of freely available oxygen; forest-floor subsystems in rain forests from lack of copious strong sunlight; and so forth.

This "Law of the Minimum" or "Law of the Limit" as it is also called, along with the mechanisms cited above, sets strong controls on the way the various components of Gaia function and on their interrelationships with one another. They keep the planet healthy -- at least under normal conditions --- and regulate its internal state much as similar controls do the state of the body of any living thing including a human being.

A good analogy of these mechanisms, their operation and their effects is the thermostat for a furnace. As long as the temperature as registered by the thermostat is below a certain point, the furnace will remain in operation. The thermostat tends to lag behind the actual temperature of the room whose heat it is

supposed to measure at least a little in its response to temperature change; so as the temperature as registered by the thermostat rises, the ambient temperature of the room it is in rises a bit more. Finally, the temperature -- as measured by the thermostat -- hits a certain peak and as it is designed to do, the thermostat trips a relay that shuts down the furnace. At this point the room temperature is a little higher than that registered on the device.

Now the reverse process takes place. The temperature falls, with room-temperature always a bit lower than the temperature registered on the thermostat. Finally it falls below the pre-set position on the thermostat and the furnace goes on again. Now the room-temperature is a little lower than that measured by the thermostat.

Again the temperature begins to climb, and the cycle continues indefinitely. Notice that when the furnace goes on, room-temperature is somewhat lower than the set-point of the thermostat, and that when it goes off, ambient temperature is higher than the set-point. Thus the actual room-temperature cycles around the set-point by a certain amount, generally small unless the thermostat has been poorly manufactured.

In like fashion the variations in size of populations or in functioning of the various subsystems of Gaia fluctuate around a set point predetermined by such absolute regulators as "The Law of the Minimum," the sizes of those fluctuations dependent upon local and to some extent, ephemeral conditions. In normal times the fluctuations are small and there are no catastrophic alterations in the balance of Gaia or its subsystems.

d) Gaia even seems to be on the verge of reproducing with its population of human beings as a major component of its reproductive system.

On one hand the efforts of many nations to put human beings in space, to establish space - or moon based industries and even, someday to colonize space, beginning with the moon and modules orbiting Earth, are the first steps to putting the life of Gaia onto (into?) the planets of other stars.

On the other hand, as the Swedish chemist Svante August Arrhenius pointed out, it may be that Earth's life has already migrated to the stars, or at least to the planets of this solar system.

Microscopic life such as bacteria is small enough that it can be easily borne by winds and other air turbulences into the upper reaches of the atmosphere, and from there be liberated into space by ionization of the medium enclosing it and action upon it of the solar wind and sunlight itself. Many forms of microscopic life also are capable of sporulating, encapsulating themselves in extremely hard tough shells which can screen out hard radiation and keep in food, gases necessary to its life and water. So encased, these bits of life can go for centuries, perhaps thousands of years in a dormant state, needing nothing. Such bacterial spores would be eminently suited to making the dangerous ages-long crossing, borne on the solar wind and steered by the magnetic currents structuring our galaxy, from our solar system to

the region around another star. If that star had planets, and these were at all capable of sustaining life anything like Earthly life, these spores could be captured by these planets and take up residence there. In this way at least some forms of Earthly life could already have colonized planets of other suns. And as has been known for some years, bacteria and other microscopic life can ~~via~~ the action of viruses, carry the genes for whole systems of much larger living organisms. If Arrhenius's theories are correct, Earth's spores may have carried to other worlds not just their own genes, but indeed the genes for much more complex, multicellular forms of life up to and including primates such as ourselves and taking up residence in the first hospitable media they encountered, may have set loose in the biospheres of those planets the genes for production of organisms very much like ourselves. If we ever make it to the stars, we may meet people not very different from us.

e) Summary; These traits, outlined above, are the general attributes of living beings; ingestion of nutrients, essential gases and water or a similar life-supporting medium; excretion of toxic or otherwise useless waste; steady-state maintenance; capacity for self-defence and self-healing; and reproduction.

The idea that our planet is a sort of living organism in its own right is not new. But prior to the last few decades it had generally been expressed only in religious terms; Cronos, Gaia, Hades and the other Cthonic Gods of the Greeks; their Roman counterparts; Pere, The Patroness of Volcanoes of the Polynesians and her brother Ta'aroa, Lord of the Storm, of Hell and Deep Sea; Sebek, Mako, Seb, the lower Isis and Nephthys, Sphinx, Aahpshi of Egypt. It is only lately that this idea has been stated in scientific terms.

2. As described above, any living being contains within itself feedback systems designed to maintain a steady-state or to rectify pathological imbalance when it occurs. One example of this would be the immune system of vertebrates which, through a complicated system of interactions, acts to keep the various populations of micro-organisms in the body in balance, checking "blooms" of any populations of these micro-organisms if they should occur.

Also living organisms contain developmental regulation systems and regulatory systems designed to enable the organism to reproduce under the best possible conditions, to cope with the changes in the environment and either adjust to them or act upon the environment to cause it to return to an optimal state of dynamic equilibrium, and otherwise to carry out the day-to-day business of survival as well as the long term business of vegetative or sexual reproduction. Subsystems within a living thing's body communicate among themselves. In mammals for example, the brain and liver, as well as the endocrine system are in constant inter-communication both neurologically and chemically. Such communication makes it possible for all these biological systems to act, in the long run, as one coherent, whole system, whereas they could not otherwise survive and the organism could not reproduce.

In general this communication takes the form of negative feedback. That is if one subsystem goes too far in its functioning in the

direction of any given trend such that its activities become life-threatening and damaging to the body as a whole and its biological integrity of form and purpose, other subsystems react such that the by-products of their reactions act as brakes upon the activity of the subsystem that is causing the problem. Basically, the long range result of this is that these subsystems are kept from falling out of synch with the biological rhythms of the organism as a whole. But if this negative-feedback intercommunication among the subsystems of the organism does not take place or fails in its purpose due to some malfunction, the organism will break down in any number of ways developing cancer, various auto-immune diseases, or perhaps diseases such as the biochemical psychoses such as schizophrenia.

Often when the subsystems of the body fail in their ability to co-operate through negative-feedback regulatory processes, it is due to the inability of the organism to obtain from its environment what it needs, such as certain nutrients, particular frequencies of solar energy, certain kinds of stimuli and so forth. Or it may be due to some poison. Rarely however, is it due to any inherent weakness in the organism not at least partially dependent upon outside factors. Life is very old on and in this planet, going back some 3.5 to 4 billion years, and living things tend to be quite rugged bar some problem in getting basic needs met from the environment.

3. Given (1) and (2) above it follows that Gaia, Earth's biosphere (and human beings are a part of that biosphere, along with every kind of living being that we share out planet with) would have had, throughout the history of life on Earth, regulatory processes tending to keep the activities of all life upon the planet in balance, so that the overall effect of these activities was to maintain the survival and well being of Gaia as a whole and perhaps, eventually allow it to develop so that like any living being it could reproduce.

4. It would be very hard to say just how the operation of any of these regulatory processes would look to any one organism that is part of Gaia, or to a population of them that happened to observe or experience them in action. Consider say a cell in the liver or gut or pancreas or whatever in a human body that is undergoing some internal upheaval for example, an infection, such as diphtheria, or perhaps the onset of puberty which is a perfectly normal occurrence that still is often attended by catastrophic shifts back and forth in the metabolism of the body of the person undergoing this developmental change. From the onset the person experiencing such distress could in the first case be seen to be having a fever, an elevated white blood cell count, possibly delirium and so on; and in the second, to be undergoing (in a male) growth of a beard or first-time production of spermatozoa, or (in a female) development and onset of menstruation, or some other process associated with the onset of puberty.

But to a cell in the body of such a person, the chemical and neurological signals going back and forth in that body might seem like catastrophes, both natural and supernatural -- flood and drought and visitations of angels and demons, earthquake and typhoon and bloody revolution and the advent of Armageddon! Only if a body-cell had an awareness of the body as a whole in which it lived

could it have an inkling of what it was actually perceiving.

Extending this analogy to Gaia and its component life, the same might be very true during either developmental or pathological upheavals in the bodyecological dynamics of the Earth's biosphere.

B. Every major religion seems to have, implicitly or explicitly, a built-in awareness of biological and ecological processes at the level of the population and the ecological system in which the population lives, even if only locally. One obvious example is Manifest in saint Francis of Assisi, who goes a long way to make up for the ecological sins now being laid at Christianity's door.

1. Every major religion seems to have taken into account human reproduction and its impact upon the community in some form, not only as the production of healthy children, but as to what form their education shall take in order to insure the greatest possible chance for the survival and ability as adults to reproduce in turn; the political ramifications of steady population growth or decrease for an established church (e.g. the Roman Catholic Church which now forbids all abortions and all forms of "artificial" contraception i.e. other than strict abstinence or the "rhythm method", partly as a means of trying to maintain the political power of the Church through sheer number); and (in the case of hunting and gathering cultures, such as the !Kung) the ecological and human ecological consequences of population increase or decline.

2. So-called "pagan" religions, such as those of ancient Greece or Rome, or of "primitive" peoples, include use of auguries or omens for purposes of divination. However the people who use these auguries perceive the purpose of the divinatory aids and whatever other results using them may have they serve to randomize action upon the environment to distribute the taking of food, mineral, timber and other resources more evenly over the habitat these people live in, so that no-one area is likely to be critically over-exploited and its carrying capacity exceeded. For example, oracles for the taking of game tend as time passes, to send hunters out on a randomized pattern so that no one area is over-hunted in a given season. The oracles work perhaps because of just this. Game is always found where the oracle says it is because at least in part, no area has been hunted out and no game populations have been made timid by over-hunting.

3. Far Eastern religions often promote vegetarianism. From the point of view of their practitioners this is for moral reasons. But the result is more biologically efficient use of land resources for farming: it takes up to 30 times the acreage to feed a steer, pig etc., for slaughter as it does to grow the same tonnage of biomass in edible grains. Also it insures avoidance of organisms for use as food which being relatively high on the food pyramid, or spawning in such high numbers that it is almost certain that they are adjusted evolutionarily to a huge attrition rate among the young, might concentrate in their bodies toxic substances in a way that plants, except under very special circumstances, could not. (In the case of spawning

organisms, such as many species of shellfish, the tender young often concentrate in the tissues of their bodies minerals or other substances, such as toxic garbage, from the bottom which are poisonous and of which most these young would die, if they were not taken by predators, including human beings.)

4. The dietary laws of Judaism are not quite as strict as say, Hinduism or Buddhism on these points. For example, Judaism allows the eating of meat. Even so the Jewish dietary laws promote avoidance of most organisms relatively high on the food-pyramids and almost all that spawn as food. Only strictly vegetarian animals, such as cattle may be eaten besides dairy and plant products; and of the herbivores, only certain of these may be eaten, others e.g. rabbit, badger and camel - being excluded. All other fauna-- carnivores, omnivores such as the pig, non-teleost marine life such as porpoises, shellfish and sharks and many herbivores - are avoided.⁵ The resultant agricultural/animal husbandry aspects of Judaic culture are quite efficient and sensible in terms of maintaining health than say cultures which are heavily dependent upon meat for diet, and which puts few or no restraints upon which animals may be eaten or how meat dishes may be prepared.

5. Schizophrenics, though dysfunctional in many ways and obviously disabled, seem peculiarly prone to two things: religious or religiously oriented visions; and egregiously intense awareness of their environment, trends therein, and microaspects of its functioning. The same is true of what Freud called hysterics.⁴

On the other hand, religious visionaries, while they are not by any means necessarily schizophrenic, (schizophrenia appears to be a dysfunction brought on by imbalance in the body e.g. too much ingested copper/or not enough ingested zinc; imbalance of B-vitamin intake; and chronic stress⁵), seem to have certain things in common with schizophrenics: tendencies to poetic, clairvoyant or prophetic vision; intense awareness environmentally; in many cases to usefully interpret what they so perceive so that others may act on their interpretations to their benefit.

6. Summarizing Both personal and institutionalized religious behaviour, sociological dynamics and hygienic sanctions take into account whether or not practitioners realize it - environmental considerations and ways for augmenting environmental awareness and perception, via agricultural and dietary laws, prophecy, omens and so forth. At the microlevel, this can be observed as well in schizophrenics and psychoneurotics as well as in religious visionaries.

In particular, what in the industrialized West are considered "fringe" religions or cults are even more environmentally aware, even if this orientation is not perceived by its members in that way.

For example, practitioners of both Ceremonial Magick and Wicca think in terms of astrology, an holistic discipline which seeks to relate every part of the organism to the organism as a whole, and the organism itself in turn to the greater environment, that is, the entire universe. To those who dislike astrology this may

seem a null point. But certainly both the Sun and the Moon have an absolute and vital impact upon Gaia, and all life is geared to such cyclic environmental changes as the tides, atmospheric trends change in both quality and quantity of sunlight, adapted to adjust to the cycle of night and day, the flow of water, short-range changes in weather and long-range climate. Astrology does speak in a language which is intimately related to the tides, atmosphere, solar flux, lunar cycles etc., and has an holistic rather than an analytic grammar, reflecting the ecological unity of the world and that the universe is a continuum and not an ultimately and irrevocably fragmented collection of absolutely alienated parts. So if nothing else, astrology is a language of ecological awareness and adjustment par excellence.

Conversely, the alchemist's search includes practices that mirror the translation of last year's biological detritus such as leaf-fall, faeces and the bodies of dead things into this year's new life: the base metal of alchemy corresponds to the base waste of sewage, rot, putrefaction and garbage, and all the rest of autumn and death; the "Black Dragon of Corruption" corresponds to the processes in soil and water that break down these waste products and transform them, via reduction, into nutrients for new life; the gold is never-ending process of life itself. Of course, these processes also mirror a psychological and spiritual change within the person which the alchemist strove to bring about in himself via his alchemical experiments, by sympathetic and contagious Magik. This does not alter the fact that intentionally or not, alchemy mirrors the general ecological cycle.⁶

Consider also the Four Elements, Fire, Water, Air, Earth. These obviously correspond to the "four realms" of ecology: insolation (incoming sunlight) as well as fire, marine and riparian systems; atmospheric dynamics; and soil ecology. Their Elementals -- the fiery Salamanders; the seductive and horrible Undines, the Sylphs of the Air; and the slow, ponderous, terrible Gnomes -- may well be our way of perceiving as individualized entities the forces at work in light, water wind and soil.

Finally consider so called UFO cults (see also Section I.C. of this outline, below) and UFO contactees, who so very often consistently repeat a message "we must stop polluting the Earth, must stop proliferating nuclear plants and weapons and radioactive wastes," and so forth. Many of these cult-members (who might, if they were just members of a Spiritualist Church, be called only "channels" for communications with beings from the "Other Side", rather than being heralded as agents of beings from Outer Space) and contactees again exhibit the behavior and aspects of religious visionaries, with or without psychosis.

C. On UAO Contactees, Cults, Phenomena and Related Matters

These have been investigated and discussed with great competence by such people as Allen Hynek, Jacques Vallee and others, many of whom are listed in the bibliography Section VI B. of this article. I wish only to touch on a few points relevant to the arguments presented here.

1. The ecological orientation of recent contactees as mentioned above.

2. Historically, for perhaps thousands of years, what we now call UFOs or UMOs have been reported in great detail by many people from widely varying cultures all over the world. In almost all cases, the interpretations on what has been perceived has had a religious cast to it. Certain "appearances of Mary the mother of Christ" or the Blessed Lady (e.g. Our Lady of Guadalupe; the appearance of the Lady to three children at Lourdes) may actually have been a different aspect of the same thing of which UAOs are manifestations for the behavior of those participating in the visionary experiences such as these are very much, in many cases, like those of UFO believers and contactees, at least in the general sense. The language of statement of the experience may vary -- a vision of the Mother of Christ, as opposed to contact with an extraterrestrial from the Planet Ormuzd, for example -- but the thing reported, and the underlying, preverbal reaction to it, seem to be the same.

3. Contactee experiences are markedly similar in many cases to those of occultists and practitioners of Magick who, by means of various ritual practices, have explored what they call the Inner Planes or Subtle Layers of reality. Even those contactees who seem indisputably psychotic come up with visions that are the same in almost all details as reports of experiences of the Inner Planes by occultists who are themselves indisputably most sane. Comparing not only the reported names but also the descriptions of appearance and reputed abilities, responsibilities and/or powers of the "Space Beings" given by UAO contactees or by members of UFO cults with those Elementals, Divas, astrals and so on given by occultists and from traditional sources from the Hermetic and religious traditions, we find an extremely high positive correlation between the two. The difference lies only in interpretation of the origin of the beings and experiences, and often in the sociological and psychological considerations: occultists generally tend to be reclusive or at least shy of reporting their researches (as are genuine contactees; see Vallee and Keel for their discussions of legitimate contactee vs. cultist behavior in their works cited in Section VI.B., below), whereas cultists and any other UFO "channelers" tend to be otherwise; occultists know pretty much, at least heuristically, what they are dealing with and how to handle it, while UFO cultists and similar people do not, and tend to go off the deep end; and the psychosocial profiles of the two types of people are overall otherwise quite different. But as for what they report of their occult or contact experiences, these are very similar in many points.

Carl Jung and many other well known philosophers have often pointed out the similarity of visions of the Magickians, the priests and the mad; this is not an original contention. However, it hasn't been mentioned before in the context of the similarity of UAO contact and cult reports, occult traditional reports of the nature of the Inner Planes and their denizens, and religious tradition to what we know now of ecological reality and its manifestations. And that is the point I wish to bring out here: That many different kinds of people, both sane and mad, for many different reasons and out of many different kinds of viewpoints, have produced visions of a reality that significantly matches, at least in essence, the ecological reality of life in our world and particular manifestations of the ecological forces that life must contend with.

4. Jacques Vallee has hypothesized that the UAO phenomenon as a whole, whether it has what we normally think of as physical reality or not, certainly is sociologically real, in that it has provoked and continues to provoke, certain changes in general patterns of belief and behavior in the cultures experiencing the phenomenon. He feels that it may be some sort of control system, not necessarily one imposed from outside, much as a thermostat controls a room temperature. The so-called UFO phenomenon does seem to have the aspects of a negative-feedback (homeostatic) regulating system. UAOs appear, people become excited; more UAOs appear, people become highly excited; this goes on until a critical level of excitement is reached, at which point UAO appearances fall off dramatically then nearly cease to occur for awhile. People calm down and finally forget about it -- and back come the UAOs. This cycle seems to be quite regular. (It is interesting, by the way, that at least in the USA which enjoys a seven-day week during which most people take two days off from work or school on Saturday and Sunday, peak UAO activity occurs on Wednesdays. In fact on any given Wednesday, a UAO is sure to be spotted at least once somewhere in the US. This level of activity statistically begins falling off day by day on a relatively smooth curve, until by Saturday almost no UAO reports come in from anywhere. The level stays low throughout the weekend, drops to its lowest point over Monday and Tuesday, then immediately shoots back up on Wednesday to its weekly peak. Just coincidentally, on Friday and Saturday nights people usually engage in exciting activities very unlike the humdrum of the work-week, while on Monday and Tuesday they are geared up for the new work-week, hence retain some of the sense of stimulation and excitement of the weekend. But on Wednesday, the middle of the work-week, as far from the previous weekend as it is from the one to come, most people have had two boring workaday days and have two more to look forward to and are BORED. They want and need excitement, a break from routine. UAOs certainly do provide such a break -- but that's just coincidence, isn't it?)

This is most interesting in relation to the discussion in Sec.IA above.

It would be interesting to have an astrologer compare the particulars of timing of the cycle of appearances of UAOs to planetary cycles and see what correlations exist, if any. I have read that the positioning of Mars in the heavens, in relation to the geometry of the Earth and the Sun, is somehow involved. This is not to say that for example, Mars or any other planets cause appearances, but rather that whatever in ourselves -- or in Gaia -- responds to the local environment of the Solar System and the wave-mechanics of the changing geometric interrelationships of its bodies at any given time may be connected with appearances of UAOs in some fashion. After all, as radio operators will attest, when planets make apparent angles of about 60° or 120° -- the same ones astrologers find to be "harmonious" or beneficial to one another or to the Sun, radio reception is generally excellent, whereas apparent angles of about 45° and 90° -- the ones astrologers find to be "difficult", hard to cope with for people -- are strongly associated with terrible radio reception. This is especially true of Saturn and Uranus, astrologically "great malefics", and the latter associated by astrologers with electricity and radio! Since life itself depends upon electrochemical processes, which

are based upon the same forces and principles that radios are, it stands to reason that the same heavenly geometric patterns that so strongly affect radio reception, however they do so, would affect living organisms and systems in basically the same way, and just as strongly. So if UAOs are a byproduct of biological and ecological processes, they too ought to be affected by their timing and nature by these same astroecological phenomena.

Section II: Conclusions Drawn from Section I: Statement of Hypothesis

The hypothesis is drawn from a summary of the points covered in the outline above and is fairly obvious. It is:

UAO/UFOs, UMOs and related phenomena have been analyzed in terms of sociology, psychology, occult studies, evidence of extra-terrestrial life, and so on, until those avenues of speculation have been fairly well explored. I propose that perhaps an ecological analysis might yield useful new insights.

Further, I propose that an analysis of the problem purely in terms of our species alone will never yield fully satisfactory insights. I propose, as well, that a purely extraterrestrial explanation for all this will never be satisfactory because the bulk of so-called UFO and related phenomena are intraterrestrial in the first place.

Finally, I propose that neither can the phenomena be explained by leaving our species out of the analysis -- I propose that we are part of why it occurs, but by no means all of it.

☞ UFOLOGICAL ILLUSIONS - PLANETRY GUIDE 1988

by G.E. Ambler

The positions of the planets which might be mistaken for UFOs are charted annually in this magazine to enable investigators and any other parties to eliminate misidentifications. All data refers to observers in the UK and the Northern Hemisphere in general.

During 1988 the highlight should be the closest position of Mars to Earth for the rest of the century. The point of opposition will be September 28th when the planet will reach a maximum magnitude of -2.8. Previous misreporting of Mars as a UFO has been fairly common when the planet has been near its opposition so a glut of reports might be anticipated around September and October.

Venus and Jupiter will dominate the evening sky from January to April, with Venus as bright as -4.4 magnitude in April. In the latter part of the year the two revert to morning objects being seen just before dawn.

The 1988 planetary positions and brightness levels are noted below for the five brightest planets and other objects -1.

Mercury: The Planet will be seen erratically as usual for a few limited periods, during the year. Sightings are always very low in the sky in close proximity to the setting or rising sun. The first period of visibility is as an evening object from around

January 18th to February 6th, then as an evening object from April 29th to May 29th with the brightest showing on May 4th with magnitude -1.5. It will make one dawn appearance thereafter from mid-October to early November.

Venus: It will dominate the sky in the evenings from January to early June reaching a maximum on April 11th (Magnitude -4.4) when it will be seen until 11 p.m. in the western sky. From July to December Venus will revert to a morning object being seen just before sun-rise.

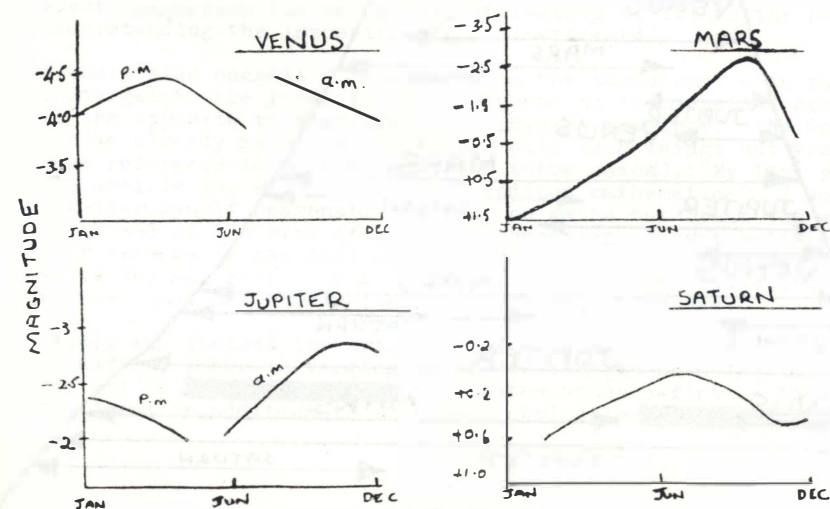
Mars: This year will give the best viewing for some time - the planet becoming brighter all the time from January to September and gradually fading from October to December. In the early part of the year the planet will not be seen until after midnight, but during the very bright period of September-November, most of the night. In January it will be -0.5 and reach the peak brightness of -2.8 in late September. By December it will dim down to -0.5 (See graphs below for the fluctuations of brightness/magnitude.)

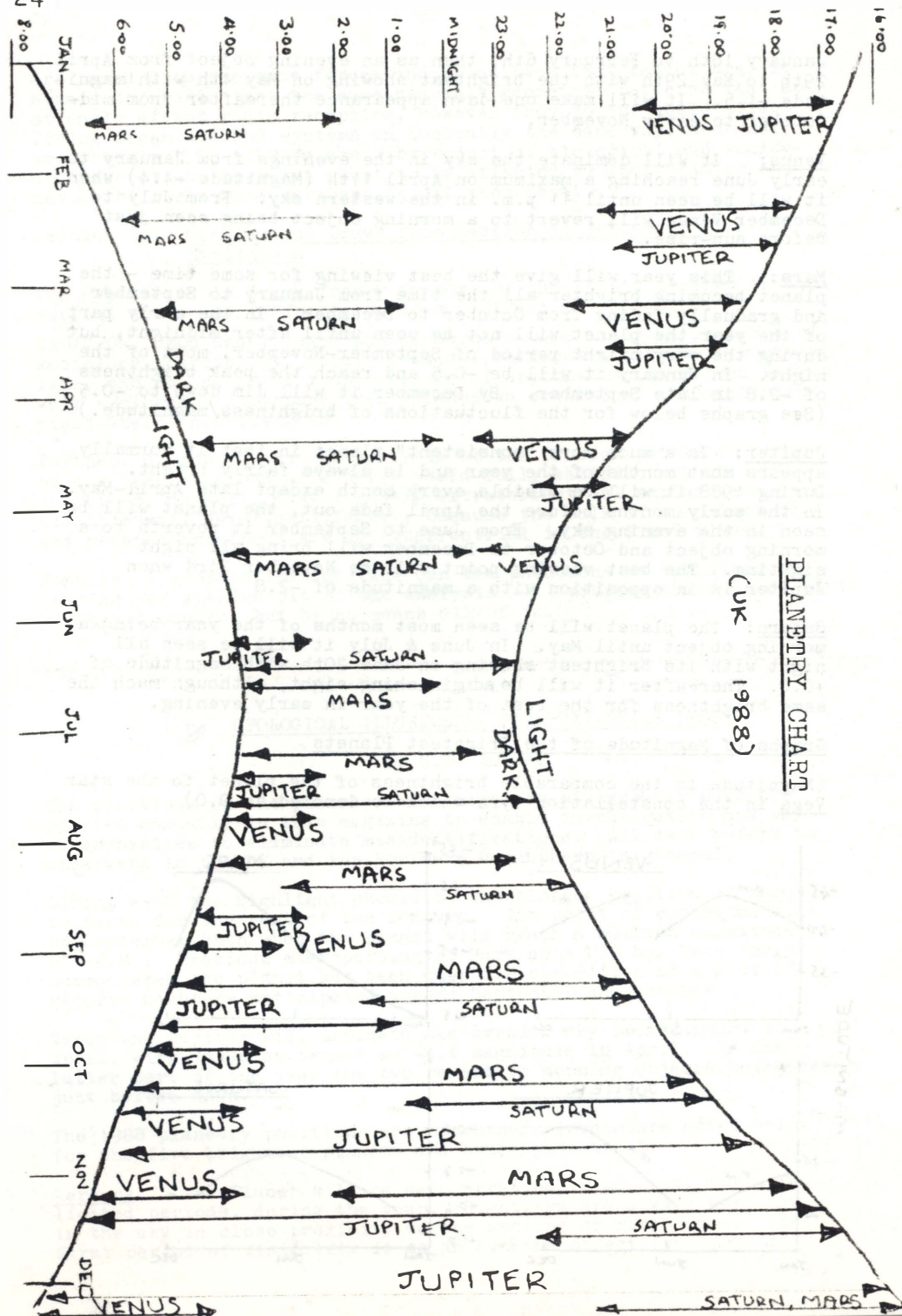
Jupiter: Is a much more "consistent" planet in that it normally appears most months of the year and is always fairly bright. During 1988 it will be visible every month except late April-May. In the early months before the April fade out, the planet will be seen in the evening sky. From June to September it reverts to a morning object and October to December will bring all night sighting. The best viewing point will be November 23rd when Jupiter is in opposition with a magnitude of -2.8

Saturn: The planet will be seen most months of the year being a morning object until May. In June & July it will be seen all night with its brightest showing on June 20th with magnitude of +0.0. Thereafter it will be diminishing sight, although much the same brightness for the rest of the year in early evening.

Graphs of Magnitude of the Brightest Planets

(Magnitude is the comparable brightness of the planet to the star Vega in the constellation Lyra which is denoted as 0.0)





Other Objects: Sirius: The brightest star visible in the Winter month. Rises behind the constellation Orion. Magnitude is -1.4

Orion Nebula: The fuzzy nebula in the Orion constellation seen at normal evening viewing times from November to March.

Pleiades: The cluster of stars seen almost directly overhead in the Winter months. Appears as a fuzzy blur to the naked eye but as a mass of stars through binoculars or a telescope, with seven bright stars predominant.

References 1. 1988 Yearbook of Astronomy - Edited By Patrick Moore.

LETTERS TO THE EDITOR

Dear Editor

I would like to take this opportunity to comment on the contents of issue 1 87/88. M. Sopers article was very interesting, however I am critical of several points. Powerlines can ionise the air in their immediate vicinity and it is known that a fluorescent tube can be lighted by earthing one end. (Through your body is sometimes good enough) Mr. Soper also states that metal does not glow with its own light unless radioactive! (Exclamation mark mine). This is rubbish. It is a myth perpetrated by comic books, superman films etc., that a radioactive source glows - this is just not true. The radiation can of course excite other materials (e.g. ZnS) to release photons and this is the misunderstanding.

I would agree that if the UFO phenomena exists (and I tend to think it does though I cannot believe little green men are involved) the crux of the subject (propulsion, antigravity and general defiance of physics) is down to electromagnetism. Light waves after all are electromagnetic (and can be captured by the gravity of a black "hole"), as are α , β and γ radiation and since all the astounding reports centre upon "antiphysics" then I think electromagnetism (or an unknown derivative of it) is the key to understanding the impossible feats 'performed'.

I would also suggest a co-study with the paranormal - in particular poltergeists are known to cause objects to levitate and generally do the opposite to what classical physics predicts. (No doubt you've already made the connection with such things but you never make reference to or analogys with these cases). My last point on the article is, why include such tedious mathematics? I would consider myself reasonably well up on maths but found the going tough and at the risk of sounding conceited, I can't believe that your readership can follow this 'heavy' theory. (The majority that is). Why not keep it simple (but obviously not ridiculously so) and say what the conclusions are in simple language.

Lastly why include the article from Terry Johnson of D.O.L.P.H.I.N To say his piece is verging on the cultist is an understatement. The guy is [REDACTED] (he quotes science-fiction like it was fact) and in addition to this he's obviously [REDACTED] I

would consider that the inclusion of such ravings undermine your main purpose and as such misrepresents your organisations.

Too many groups such as yours blindly accept reports, data etc., as fact and often refuse to stand back and scientifically criticise the collected material. As I have already said I believe in UFO's but bear in mind that aliens (extraterrestrial ones that is, as opposed to Lord Clancarty's inner earth aliens) would have to travel faster than the speed of light to get here and so the subject should be viewed cautiously and not jumped into head first and eyes closed.

Yours faithfully, D. Hunter. Sittingbourne.

Editor Replies: Mr. Hunter has raised several delicate issues in this letter. Firstly Mike Soper's heavy mathematics in his last article- although I am a non-active BSc in Maths and Chemistry, I too am unable to get much beyond the first few paragraphs of Mike's hypothesis. Do other readers feel that Awareness articles should contain mathematics beyond GCE "O" Level or "A" Level or not?

The article by Johnson called "Your Screams you Never Hear", seems to have been badly received in several quarters. Clearly the readership felt this was "over the top", although my footnote indicated that the material was verging on the cultist.

Finally the remarks about "blind acceptance of reports/data" is really not fair as we state on the leader page of every magazine that: "Opinions expressed in this journal are not necessarily those of the Editor or of the staff of Contact (UK)." If the editor agreed with everything printed in Awareness you would no doubt find it dull, boring and uninteresting!

Dear Editor

Comment upon Kiril Terzиеv's Hypothesis (Awareness Vol.15 No.1)

The first two paragraphs of this paper are perfectly correct until we come to the observation that the pilot experiences no centrifugal force. A rotating mass in free space must have its axis through the centre of gravity otherwise unbalanced centrifugal forces will appear. As the pilot's mass contributes to the position of the centre of gravity, he must experience a centripetal force towards O_3 (Fig.3) in order to balance the forces experienced by masses diametrically opposite, i.e. on the far side of O_3 . He is not rotating about O_2 (Fig 3) since only axis O_3 is fixed in space.

If he rotates 180° (Fig.3) and then the gyro G_2 stops and G_3 is started up it will merely repeat the convolutions of Fig.3. It will only carry out the behaviour of Fig 5 if the centre of gravity is changed from O_3 to O_2 . To achieve this internal masses must be moved from O_2 to O_3 . But this will merely displace the whole machine a distance O_2O_3 and O_2 will now lie where O_3 was previously. Rotation of gyroscope O_3 will now cause a behaviour exactly as shows in Fig.3 except that O_3 & O_2 would be exchanged in this diagram.

To summarise, a body must always rotate about its centre of gravity all centrifugal forces (MW^2/r) are in direction radiating from this centre of gravity and finally position or linear velocity of this centroid cannot be altered by any internal mechanism.

Yours faithfully, Adam J.R. Belford. Peterborough.

Dear Editor

On receiving your recent publication 'Awareness' Vol.15 No.1. I was very saddened to learn that the stalwart of Research at Contact International, Derek Mansell, is considering leaving the organisation due to personal problems which highlight how fragile all UFO groups are when a key member is suddenly lost to its ranks.

Derek's work for Contact International is legendary and I am sure he will be sadly missed by his colleagues in the Oxford area, and all those who have come to know him over the years. My first association with Derek came almost fifteen years ago and often he would spend long periods on the telephone between Oxford and Leeds discussing many aspects of the phenomenon, which filled me with views and ideas that would be later put into practise.

Without Derek Mansell, I doubt very much whether I would be as actively involved in this subject as I am, so on a personal basis both I and the Yorkshire UFO Society and QUEST magazine, owe everything to Derek & Contact Organisation.

Yours faithfully, Graham Birdsell (President -Yorkshire UFO Soc.)

Dear Editor,

I am only eleven but I am fascinated about the behaviour of UFOs. My mother and sister both seen a UFO one summers afternoon they both saw a circle of light going down into a nearby rugby field. That night other people saw the strange lights and it was dotted all over the evening mail. About 4 weeks ago my mother was driving home late one night when she saw a definite UFO over a power station. I thought that it could have been getting some energy for the craft.

Yours sincerely, Lindsey Booth. (Hartlepool)

A few days ago I received a letter from a girl in Italy asking if she could correspond with a member of Contact U.K. as a pen-friend. I don't know how old she is, but would think she's a teenager. I dropped her a little note saying I would pass on her request to the Editor of our magazine- asking anyone interested to correspond with her.

Her name and adress are:
Miss (or Signorina) D. Infascelli, Viale B. Buoizzi 19, 00197 ROMA ITALY.

Yours sincerely, F. Passey.

Please make cheques/postal orders payable to 'YUFOS' and send to: 68 Buller Crescent, Leeds. LS9 6LJ.

UFO SPOTTERS GUIDE to UFO clubs and groups worldwide, includes UFO publications, book suppliers, photo suppliers and news clipping services, £3 incl. postage from: UFON, Flat 2, 1, Pelham Place, Seaford, Sussex.

1987 UFO BESTSELLERS! Quality books - highly recommended - inc.postage;;

"ABOVE TOP SECRET" by Tim Good. Illustrated. 590 pages. £17.00
 "UPUS: 1947-1987, The 40 Year Search for An Explanation"
 Large quality paperback, well illus. Ed: Hilary Evans. £14.00
 From: Lionel Beer, 15 Freshwater Court, Crawford St. London, W1H 1HS

UFO NEWSCLIPPING SERVICE Probably the best regular newsclipping service there is on UFOs, Bigfoot and related topics. Up to date reports on a world wide basis and foreign press accounts in translated form. A must for every serious UFOlogist. Each month subscribers receive a 20 page report reproduced by photo-offset.

For subscription details and sample pages from our immaculate service, write today sending S.A.E to: UFO NEWSCLIPPING SERVICE, Route 1, Box 200 Plumerville, Arkansas 721127 USA.

BOOKS AND MAGAZINES FOR SALE A selection of over 300 titles in stock. Quality publications on UFOs, mysteries and strange phenomenon, many at bargain prices. Please send S.A.E. for lists to : Lionel Beer. FRAS. 15 Freshwater Court, Crawford Street, London W1H 1HS.

PHOTOCOPYING SERVICE Now available from CONTACT Headquarters - A4 copies only-
5p each (100 @ 4p) Submit originals plus remittance and postage to:
11, Ouseley Close, Oxford. England. Prompt attention. Other sizes
considered.

CAR Stickers Still available @ 45p each from the above address. Attractive yellow and black PVC showing UFO and Contact International Logo.

UFO CORRESPONDENCE COURSE Learn all about Ufology at modest expense. A very special course prepared by Contact International, containing surprise facts and figures - a wealth of information for the beginner or connoisseur. Details from Oxford address.

UFO AND SPACE AGE PUBLICATIONS A large selection of titles are available now. Send S.A.E for lists to: Ms. S.R. Stebbing, 41 Terminus Drive, Herne Bay, Kent. CT6 6PR. Now available "George Adamski the Untold Story" by Lou Zinsstag and Timothy Good. £6.95. Skycrash A cosmic Cover Up. The World's first Officially Confirmed UFO Encounter. Hardback. £7.95. Strange Things A curious collection of freakish and funny scientific facts by Robert Emple. Paperback. £2.00

UFO BRIGANTIA IS THE JOURNAL OF THE INDEPENDENT UFO NETWORK (IUN). PUBLISHED BI-MONTHLY, IT CONSISTS OF 32 WELL ILLUSTRATED A4 PAGES BOUND IN A STIFF CARD COVER. THIS MAGAZINE IS A MUST FOR ALL SERIOUS RESEARCHERS OF THE UFO PHENOMENON.

UFO BRIGANTIA FEATURES ARTICLES ON ALL ASPECTS OF THE UFO PHENOMENON FROM COVER-UP'S TO EARTHLIGHTS, AND IS NOT AFRAID TO PRINT ARTICLES OF A CONTROVERSIAL NATURE AND THOSE WHICH CHALLENGE ACCEPTED UFO BELIEFS. THE MAGAZINE ALSO CONTAINS ARCHIVE CASES, CURRENT AND UP TO DATE INVESTIGATIONS, BOOK AND MAGAZINE REVIEWS AND MUCH MORE, ALL OF IT OF VITAL IMPORTANCE TO UFLOGY IN THE 1980's.

THE INDEPENDENT UFO NETWORK (IUN) WAS FORMED OUT OF LIAISON BETWEEN MEMBERS OF THE WEST YORKSHIRE UFO RESEARCH GROUP (WYUFORG), AND THE YORKSHIRE UFO NETWORK (YUFON) AND SEVERAL INDEPENDENT UFO INVESTIGATORS LIVING IN THE NORTH OF ENGLAND. THE INDEPENDENT UFO NETWORK HOLDS NO PARTICULAR VIEWPOINT ON THE NATURE AND ORIGIN OF THE UFO ENIGMA AND SEEKS TO DISSEMINATE ITS RESEARCH AND INVESTIGATIONS VIA UFO BRIGANTIA TO HELP GIVE A FURTHER OVERVIEW AND PERSPECTIVE ON THE SUBJECT OF UFO'S.

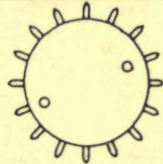
UFO BRIGANTIA SUBSCRIPTION DETAILS.

U. K. RATES: £7.00 FOR ONE YEAR (6 BI-MONTHLY ISSUES).

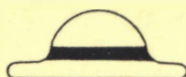
[illegible]

ALL OTHER OVERSEAS RATES SAME AS U.S.A. OR EQUIVALENT CURRENCY. ALL OVERSEAS SUBSCRIPTIONS BY INTERNATIONAL MONEY ORDER ONLY PLEASE. IF YOU WOULD LIKE TO SUBSCRIBE TO UFO BRIGANTIA THEN PLEASE SEND YOUR SUBSCRIPTION TO: MARTIN DAGLESS, 19 BELLMOUNT GARDENS, BRAMLEY, LEEDS, WEST YORKSHIRE, LS13 2ND, ENGLAND. PLEASE MAKE CHEQUES/POSTAL ORDERS/MONEY ORDERS PAYABLE TO 'MARTIN DAGLESS'.

DON'T MISS IT!



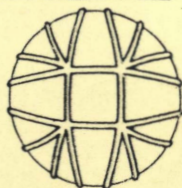
Attigneville,
France. May 1955.



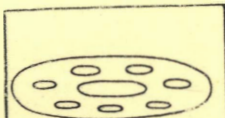
Low Fell,
Gateshead. Aug. 1967



McMinnville,
Oregon. May 1950



Siggerud,
Norway. Jan. 1969



Oakland, New Jersey. 1957



Baildon,
Yorkshire. Jul. 1967